



Hurricane MATTHEW QuickLook Posted: 06:00 EDT 10/05/2016

NOAA and NOAA Partnership Stations Relative to the Storm Springmaid Pier, SC Oyster Landing, SC Charleston, SC Fort Pulaski, GA 10/09/16 2 AI Fernandina Beach, FL 10/08/16 2 AM Mayport, FL Trident Pier, FL 62 AM Lake Worth Pier, FL Virginia Key, Fl 10/06/16 2 PM 10/06/16 2 A 0/05/16 2 Active Stations Extent TS Force Winds 1:12,500,000 Extent Hurricane Force Winds

Storm Analysis

As of 10/05/2016 06:00 EDT, water levels from southern Florida to South Carolina are slightly elevated and range between 0.3 and 2.0 feet above normal tide levels. Winds range 10 and 20 kts with slightly higher gusts. Barometric pressure is generally steady across the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: CRD

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION: HURRICANE MATTHEW ADVISORY NUMBER 28
NWS NATIONAL HURRICANE CENTER MIAMI FL
500 AM EDT WED OCT 05 2016

...STRONG WINDS, HEAVY RAINS, AND A DANGEROUS STORM SURGE BEGINNING TO SPREAD OVER THE BAHAMAS...

SUMMARY OF 500 AM EDT...INFORMATION

LOCATION...21.1N 74.6W
ABOUT 65 MI...NNW OF THE EASTERN TIP OF CUBA
ABOUT 155 MI.. SSE OF LONG ISLAND, BAHAMAS
MAXIMUM SUSTAINED WINDS...125 MPH
PRESENT MOVEMENT...N OR 350 DEGREES AT 10 MPH
MINIMUM CENTRAL PRESSURE...962 MB

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

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The Hurricane Watch along the east coast of Florida has been extended northward to Fernandina Beach.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

- * North of Golden Beach to Sebastian Inlet, FL
- * Lake Okeechobee

A Hurricane Watch is in effect for...

* North of Sebastian Inlet to the Fernandina Beach

A Tropical Storm Warning is in effect for...

- * Chokoloskee to Golden Beach
- * Florida Keys from Seven Mile Bridge eastward

* Florida Bay

Interests elsewhere in the Florida Peninsula and the Florida Keys should monitor the progress of Matthew.

For storm information specific to your area in the United States, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office. For storm information specific to your area outside the United States, please monitor products issued by your national meteorological service.

DISCUSSION AND 48-HOUR OUTLOOK

At 500 AM EDT (0900 UTC), the center of Hurricane Matthew was located near latitude 21.1 North, longitude 74.6 West. Matthew is moving toward the north near 10 mph (17 km/h). A turn toward the north-northwest is expected today, followed by a northwest turn tonight. Matthew will be moving across the Bahamas through Thursday, and is expected to be very near the east coast of

Florida by Thursday evening.

Maximum sustained winds are near 125 mph (205 km/h) with higher gusts. Matthew is a category 3 hurricane on the Saffir-Simpson

Hurricane Wind Scale. Some slight strengthening is forecast during the next couple of days.

Hurricane-force winds extend outward up to 40 miles (65 km) from the center and tropical-storm-force winds extend outward up to 160 miles (260 km).

The estimated minimum central pressure is 962 mb (28.41 inches).

HAZARDS AFFECTING LAND

WIND: Hurricane conditions are expected to continue affecting the northwest portion of Haiti this morning. Hurricane conditions are likely occurring over eastern Cuba and portions of the southeastern Bahamas. Hurricane conditions are expected to spread over the central Bahamas later today and the northwestern Bahamas tonight.

Tropical storm conditions will continue over portions of Haiti and eastern Cuba this morning. Tropical storm conditions are spreading over the southeastern Bahamas and Turks and Caicos Islands, and should reach the central and northwestern Bahamas later today, making outside preparations difficult or dangerous. Tropical storm conditions should diminish within the warning area in the Dominican Republic this morning.

Hurricane conditions are possible in the hurricane watch areas in Cuba this morning with tropical storm conditions possible this morning.

Hurricane conditions are expected within the hurricane warning area in Florida by late Thursday, with tropical storm conditions expected by early Thursday. Tropical storm conditions should reach the tropical storm warning area in Florida by early Thursday.

RAINFALL: Matthew is expected to produce total rainfall amounts in the following areas:

Upper Florida Keys northward to coastal east-central Florida....4 to 7 inches, isolated 10 inches

Middle to Lower Florida Keys....1 to 3 inches, isolated 5 inches

Life-threatening flash floods and mudslides are likely in southern and northwestern Haiti, the southwestern Dominican Republic, and eastern Cuba.

STORM SURGE: The combination of a dangerous storm surge and large and destructive waves will raise water levels by as much as the following amounts above normal tide levels.

North Palm Beach to the Flagler/Volusia county line...3 to 5 ft

Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. Large waves generated by Matthew will cause water rises to occur well in advance of and well away from the track of the center.

The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. There is a danger of life-threatening inundation during the next 36 hours along the Florida east coast from North Palm Beach to the Sebastian Inlet. There is the possibility of life-threatening inundation during the next 48 hours from Sebastian Inlet to the Flagler/Volusia county line. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

SURF: Swells generated by Matthew will continue to affect portions of the coasts of Hispaniola, eastern Cuba, and the Bahamas during

the next few days. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your

local weather office.

NEXT ADVISORY

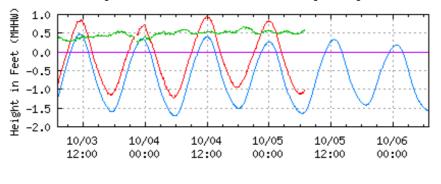
Next intermediate advisory at 800 AM EDT. Next complete advisory at 1100 AM EDT.

Forecaster Brown/Cangialosi

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: <u>Virginia Key - Water Level</u>, <u>Virginia Key - Winds</u>, <u>Virginia Key - Barometric</u>, <u>Lake Worth Pier - Water Level</u>, <u>Lake Worth Pier - Winds</u>, <u>Trident Pier - Winds</u>, <u>Trident Pier - Barometric</u>, <u>Mayport (Bar Pilots Dock) - Water Level</u>, <u>Mayport (Bar Pilots Dock) - Winds</u>, <u>Fernandina Beach - Water Level</u>, <u>Fernandina Beach - Water Level</u>, <u>Charleston - Water Level</u>, <u>Charleston - Water Level</u>, <u>Charleston - Water Level</u>, <u>Springmaid Pier - Water Level</u>,

NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

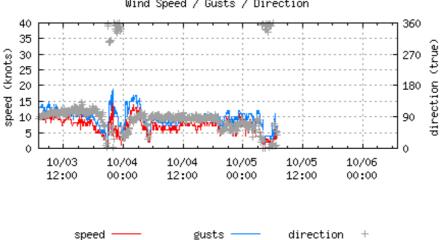


Predicted Tide (Obs-Pred) (Obs-Pred) MHHW

Last Observed Sample: 10/05/2016 06:54 (EDT). Data relative to MHHW Observed: -1.03 ft. Predicted: -1.61 ft. Residual: 0.58 ft. Historical Maximum Water Level: Oct 24 2005, 2.58 ft.

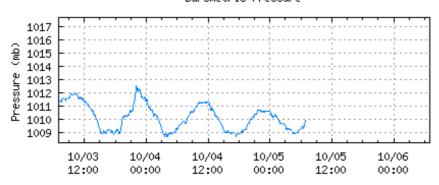
Next High Tide: 10/05/2016 12:39 (EDT), 0.33 ft.

NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Wind Speed / Gusts / Direction



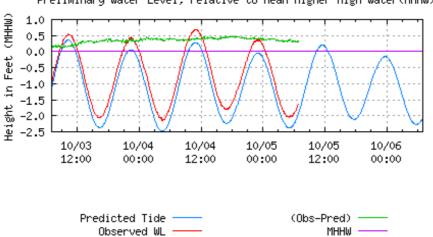
Last Observed Sample: 10/05/2016 06:54 (EDT) Wind Speed: 4 knots Gusts: 6 knots Direction: 46° T

NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Barometric Pressure



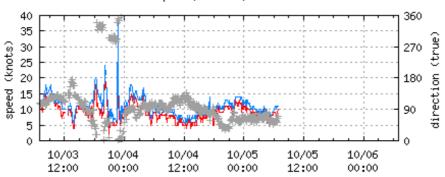
barometric pressure ——
Last Observed Sample: 10/05/2016 06:54 (EDT)
Barometric Pressure: 1009.9 mb

NOAA/NOS/CO-OPS <u>8722670 Lake Worth Pier, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



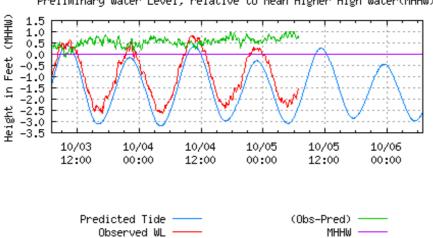
Last Observed Sample: 10/05/2016 06:54 (EDT). Data relative to MHHW Observed: -1.63 ft. Predicted: -1.92 ft. Residual: 0.29 ft. Historical Maximum Water Level: Nov 23 1984, 1.88 ft. Next High Tide: 10/05/2016 11:32 (EDT), 0.20 ft.

NOAA/NOS/CO-OPS <u>8722670 Lake Worth Pier, FL</u> Wind Speed / Gusts / Direction



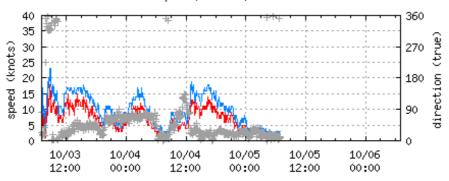
speed — gusts — direction + Last Observed Sample: 10/05/2016 06:54 (EDT)
Wind Speed: 10 knots Gusts: 11 knots Direction: 69° T

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



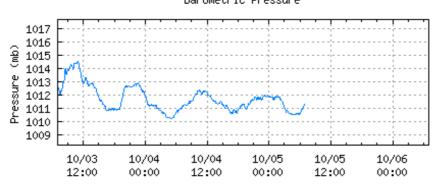
Last Observed Sample: 10/05/2016 06:54 (EDT). Data relative to MHHW Observed: -1.57 ft. Predicted: -2.31 ft. Residual: 0.74 ft. Historical Maximum Water Level: Sep 26 2004, 4.01 ft. Next High Tide: 10/05/2016 11:17 (EDT), 0.26 ft.

$\begin{array}{c} NOAA/NOS/CO\text{-}OPS \ \underline{8721604\ Trident\ Pier,\ FL}\\ \text{Wind\ Speed\ /\ Gusts\ /\ Direction} \end{array}$



speed — gusts — direction + Last Observed Sample: 10/05/2016 06:54 (EDT)
Wind Speed: 2 knots Gusts: 3 knots Direction: 13° T

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Barometric Pressure

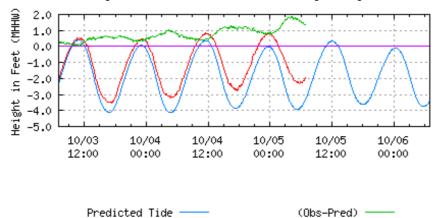


barometric pressure ----

Last Observed Sample: 10/05/2016 06:54 (EDT)

Barometric Pressure: 1011.3 mb

NOAA/NOS/CO-OPS <u>8720218 Mayport (Bar Pilots Dock)</u>, FL Preliminary Water Level, relative to Mean Higher High Water(MHHW)



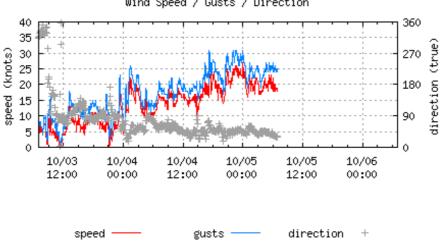
Last Observed Sample: 10/05/2016 06:54 (EDT). Data relative to MHHW Observed: -1.96 ft. Predicted: -3.30 ft. Residual: 1.34 ft.

MHHW

Observed WL

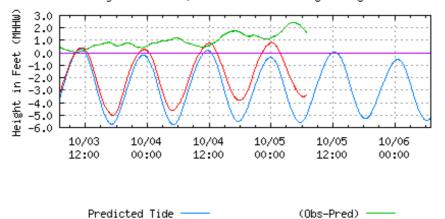
Historical Maximum Water Level: Sep 27 2004, 2.47 ft. Next High Tide: 10/05/2016 12:04 (EDT), 0.33 ft.

NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL Wind Speed / Gusts / Direction



Last Observed Sample: 10/05/2016 06:54 (EDT) Wind Speed: 19 knots Gusts: 24 knots Direction: 28° T

NOAA/NOS/CO-OPS <u>8720030 Fernandina Beach, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



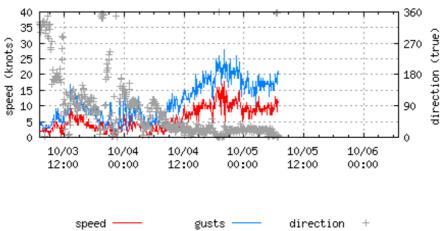
Last Observed Sample: 10/05/2016 07:00 (EDT). Data relative to MHHW Observed: -3.32 ft. Predicted: -4.90 ft. Residual: 1.58 ft.

MHHW

Observed WL

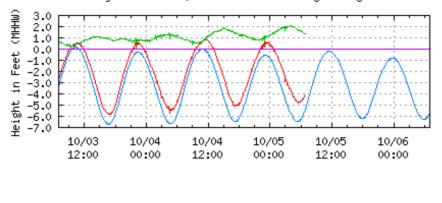
Historical Maximum Water Level: Oct 2 1898, 6.94 ft. Next High Tide: 10/05/2016 12:20 (EDT), 0.06 ft.

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL Wind Speed / Gusts / Direction



Last Observed Sample: 10/05/2016 07:00 (EDT) Wind Speed: 10 knots Gusts: 20 knots Direction: 358° T

NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/05/2016 06:54 (EDT). Data relative to MHHW Observed: -3.96 ft. Predicted: -5.28 ft. Residual: 1.32 ft.

(Obs-Pred)

MHHW

360

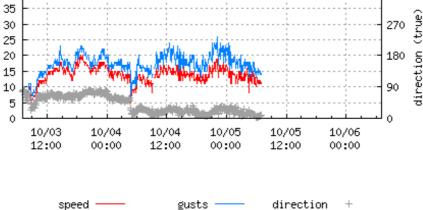
Predicted Tide

speed (knots)

Observed WL

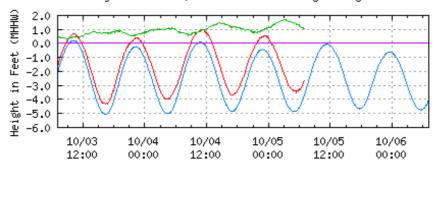
Historical Maximum Water Level: Oct 15 1947, 3.40 ft. Next High Tide: 10/05/2016 11:32 (EDT), -0.21 ft.

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA Wind Speed / Gusts / Direction



Last Observed Sample: 10/05/2016 06:54 (EDT) Wind Speed: 11 knots Gusts: 14 knots Direction: 10° T

NOAA/NOS/CO-OPS 8665530 Charleston, SC Preliminary Water Level, relative to Mean Higher High Water(MHHW)



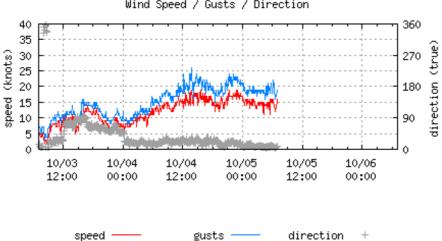
Predicted Tide

Observed WL MHHW Last Observed Sample: 10/05/2016 06:54 (EDT). Data relative to MHHW

(Obs-Pred)

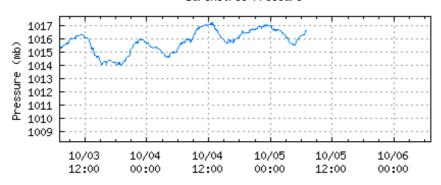
Observed: -2.68 ft. Predicted: -3.73 ft. Residual: 1.05 ft. Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 10/05/2016 11:23 (EDT), -0.05 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, SC Wind Speed / Gusts / Direction



Last Observed Sample: 10/05/2016 06:54 (EDT) Wind Speed: 16 knots Gusts: 19 knots Direction: 10° T

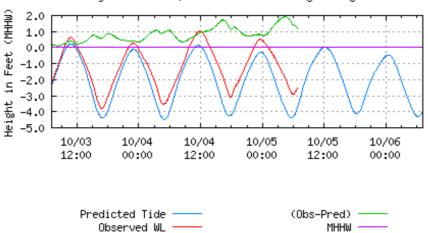
NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Barometric Pressure



barometric pressure —— Last Observed Sample: 10/05/2016 06:54 (EDT)

Barometric Pressure: 1016.6 mb

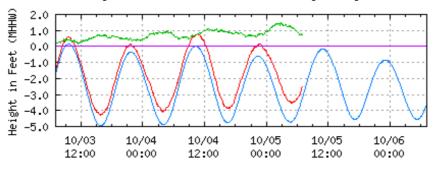
NOAA/NOS/CO-OPS <u>8662245 Oyster Landing (N Inlet Estuary)</u>, <u>SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/05/2016 06:48 (EDT). Data relative to MHHW Observed: -2.53 ft. Predicted: -3.73 ft. Residual: 1.20 ft.

Historical Maximum Water Level: Aug 26 2011, 2.40 ft. Next High Tide: 10/05/2016 12:11 (EDT), 0.03 ft.

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/05/2016 06:54 (EDT). Data relative to MHHW Observed: -2.54 ft. Predicted: -3.28 ft. Residual: 0.74 ft.

(Obs-Pred)

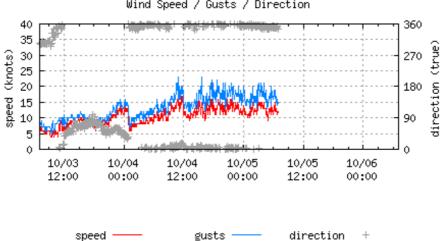
MHHW

Predicted Tide

Observed WL

Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 10/05/2016 10:57 (EDT), -0.16 ft.

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 10/05/2016 06:54 (EDT) Wind Speed: 12 knots Gusts: 15 knots Direction: 345° T

Latest Water Level Observations on MHHW

Station II	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8723214	Virginia Key, FL	10/05/2016 06:54 (EDT)	-1.03 ft	-1.61 ft	0.58 ft	0.93 ft
8722670	Lake Worth Pier, FL	10/05/2016 06:54 (EDT)	-1.63 ft	-1.92 ft	0.29 ft	0.69 ft
8721604	Trident Pier, FL	10/05/2016 06:54 (EDT)	-1.57 ft	-2.31 ft	0.74 ft	0.83 ft
8720218	Mayport (Bar Pilots Dock), FL	10/05/2016 06:54 (EDT)	-1.96 ft	-3.30 ft	1.34 ft	0.84 ft
8720030	Fernandina Beach, FL	10/05/2016 07:00 (EDT)	-3.32 ft	-4.90 ft	1.58 ft	0.83 ft
8670870	Fort Pulaski, GA	10/05/2016 06:54 (EDT)	-3.96 ft	-5.28 ft	1.32 ft	0.83 ft
8665530	Charleston, SC	10/05/2016 06:54 (EDT)	-2.68 ft	-3.73 ft	1.05 ft	1.02 ft
8662245	Oyster Landing (N Inlet Estuary), SC	10/05/2016 06:48 (EDT)	-2.53 ft	-3.73 ft	1.20 ft	1.03 ft
8661070	Springmaid Pier, SC	10/05/2016 06:54 (EDT)	-2.54 ft	-3.28 ft	0.74 ft	0.78 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce